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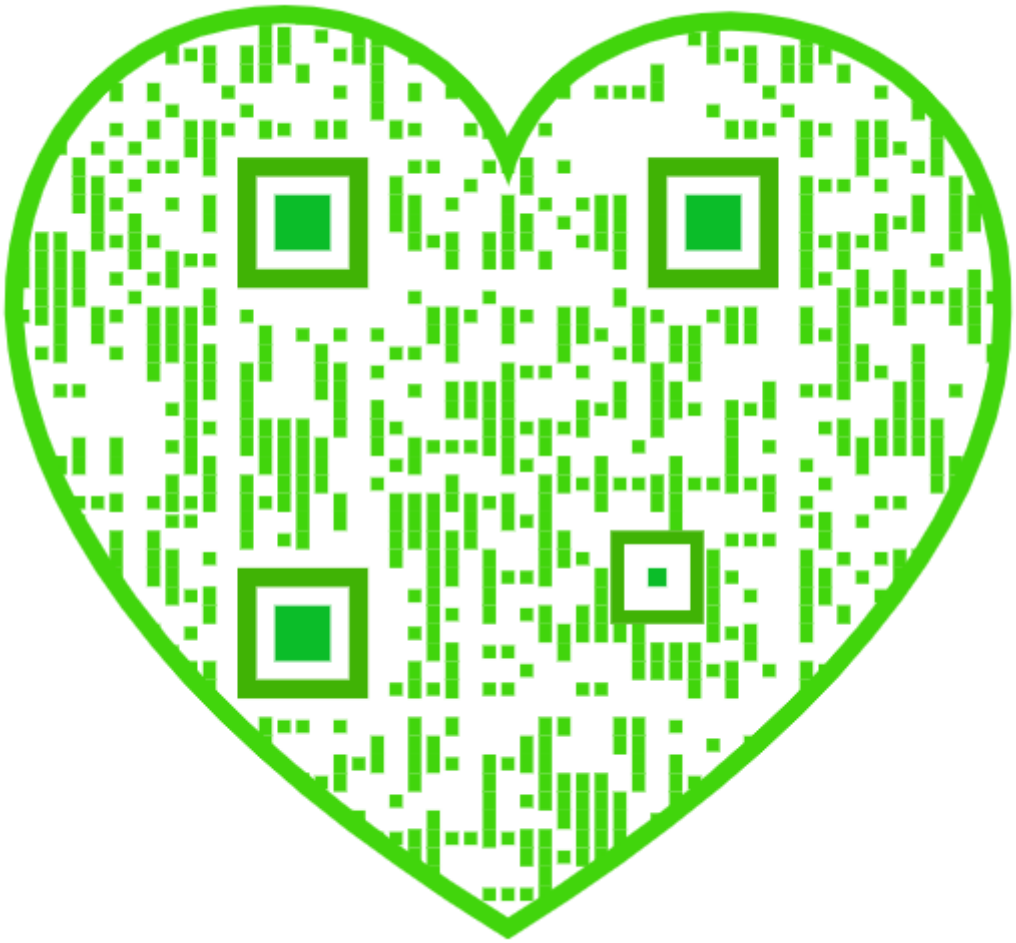

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THE

SILENT SIGN WRITER

A BOOK DEVOTED ENTIRELY TO
THE ART OF

SIGN WRITING

IN ALL ITS BRANCHES WITH FINE

HALF-TONES

OF DIFFERENT DESIGNS AND SUCH OTHER
INFORMATION AS WILL GIVE TO THOSE
WHO ARE DESIROUS OF LEARNING, A
VERY CLEAR AND DISTINCT UNDER-
-::- STANDING OF THE ART. -::-

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THE SILENT SIGN WRITER

In compiling this work for the benefit and guidance of beginners the author will endeavor to confine himself to the art of SIGN WRITING exclusively, without using terms of phraseology which would detract rather than add to the value of this most useful book.

Only the best methods will be put forth in a manner which many years of actual experience would suggest as the most useful and practical by which a beginner may, in a very short time, not only become a practical sign writer, but also make a SNUG SUM OF MONEY.

There is no trade or profession in the world that offers such opportunities as does SIGN WRITING.

Master the art and you may travel from one end of the earth to the other and not only make your expenses and be independent but lay up money besides.

Drop in anywhere any time and you can make easy money while others will marvel at your easy method.

These are actual facts worth your earnest consideration.

Commence to practice today. How quick time passes when one becomes interested. Just a little practice each day and you are soon a very fair SIGN WRITER, and you will congratulate yourself every day for having been wise enough to adopt this method for improving your position.

There is no such thing as fail for those who are interested enough to study the contents of, and will put into practice the methods herein contained.

It will be more easy for you as a beginner to learn, than it was for the writer, simply because every point or suggestion necessary to become a proficient sign writer is given in a full, clear manner throughout the book.

Right here it might be well to state, that this book is not intended for those whose mission on earth seems to be to fail in every undertaking simply because they are never willing to put forth a little effort in their own behalf.

There never was a good deed done or anything ever accomplished in this world without some effort on the part of those who would succeed.

Anyone who becomes the lucky possessor of this book and does not profit by the information it contains, never need hope of making a success of any undertaking in this world.

Did you ever stop to think that advertising is the very life of trade, and the vast amount of money

that is invested every year in display advertising? And did it ever occur to you that when you make it a business to advertise for others that you are in a position which is always alive?

Advertising will never die.

Display advertising which comes under the head of SIGN WRITING is always hand in hand with up to date methods.

Note the Gunning system of Chicago. Sam Hote of New York, and others.

Millions of dollars every year are spent in this class of advertising and millions more will be spent. Why not you get a goodly portion of this money?

New ideas in advertising are always eagerly sought after by wide awake firms, and display sign work offers the broadest field.

Year after year the largest firms follow this class of advertising which is sufficient proof that they have by test found, that SIGN DISPLAY ADVERTISING is the most profitable.

This class of advertising leads all others, simply because it is cheap, attractive, and when once in place lasts a long time, thereby giving business men a living advertisement that costs but a trifle each month.

Suppose you are poor and have no trade and it is necessary to make a living for yourself, could you imagine anything more pleasant than to become your own boss and start a straight legitimate profitable business of your own?

Compare this with having to accept anything and everything that is offered you (and quite often nothing at all) for a very small compensation, besides when you work by the day, you have but a small chance to lay anything aside, or enjoy life as you should.

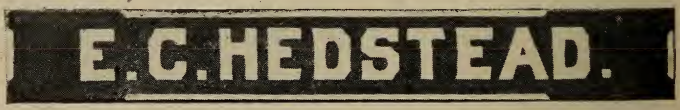
THINK THIS OVER

SIGN WRITING besides being pleasant and profitable work is considered one of the very best trades today, because a sign writer possesses a hold on advertising which no one can take from him.

The best that outsiders, who have not improved their opportunity, can do, is to envy a sign writer's position.

One of the foremost reasons why the writer compiled this book was because of the many hundreds of applications made to him to learn the art of SIGN WRITING.

The author is a practical man in every branch and detail of the sign business, from the plainest to the most artistic work. But let it be said right here that the best and easiest money is made out of the common, ordinary work. The kind that stands out in bold letters, clean cut for example:



Cut No. 1.

There is really nothing better or more attractive than a clear, clean cut, black and white sign for most purposes.

Right here let me impress upon you the importance of simplicity in sign work.

The public does not care to look at Chinese puzzles, it takes too much of their time to figure them out and consequently such a sign fails to fulfill its mission.

Of course, you may to a very limited degree, make use of your artistic ability, but for general purposes, as previously stated, let simplicity be your constant watchword and you will find that your work will become more and more popular.

Now, that I have your whole attention, and have given you a few hints which I hope are partly new to you and by which you may profit, I will proceed to get you ready for your first real active practice.

First of all you must have a brush, the right kind of course. One will do for most work, but you had better get a half dozen, assorted camel hair or red sable letterers, say Nos. 3, 6 and 8 of camel hair and the same of red sable, the cost will not be over 75 cents, then you are equipped for all classes of fine lettering, besides they will, with proper care, last a long time. It is of the utmost importance to have a good brush, one that comes to a nice chisel point and cuts a clean edge. There is nothing that would tend to discourage a beginner quicker than a poor lettering brush,

such a brush would even worry an experienced sign writer to produce good results.

Did you ever notice how many say: "I will get a cheap instrument while I am learning to play," or "I will use a cheap brush while I am learning to letter and after I become more proficient I will get a better one." You readily see the folly of such a proceeding.

By all means make your first practice easy by procuring first class tools to work with, thereby eliminating all chances of ever becoming discouraged.

LEAVE CHEAP INFERIOR TOOLS ALONE AT ALL TIMES

This is sound advice given for your benefit. Good brushes are the cheapest in the long run, besides always giving entire satisfaction.

In your first practice in learning to make letters, start right in with a lettering brush because that will be your instrument all the way through and the sooner you master it the better. Of course, a brush is soft and will be a trifle awkward in the start, and will be a little inclined not to go just where you want it to, but after a little practice you will be surprised to find how it will become almost human. You will know beforehand just what it intends to do.

In making straight lines and curves it will be

entirely under your control. For your first practice you may use a good, stiff cardboard, standard size at any printing office is about 22 by 28 inches. This will save you preparing a surface for the first few lessons and besides you will do a lot of card work anyway, after you learn, and the sooner you become used to it the better. When using a lettering brush, do not use too much color and work your letterer on glass or a smooth surface. This brings the hairs to a chisel edge and works the color evenly through the brush.

For card work you may use water colors, they look pretty, besides they dry quickly and are really the best colors to use for this class of work.

They may be procured of paint dealers in small glass jars called distemper colors, or you may get a few cents worth of finely ground dry colors and mix with water using just enough glue or gum arabic to cause them not to chalk or rub off after drying.

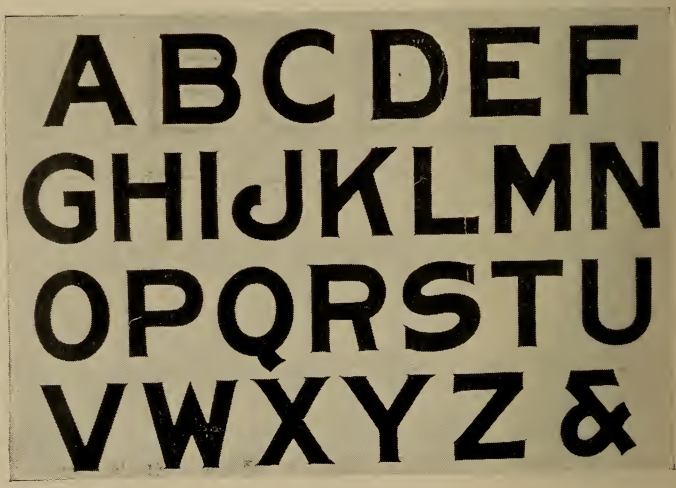
Distemper colors are mixed the same way, or instead of glue or gum arabic (for distempers) use stale beer, this works well and colors will not rub. When using stale beer, use no water. Use your colors quite thin so they will work free from the brush. A little practice, better than anything else will enable you to make them the proper consistency. When using glue or gum arabic for water colors, make a weak solution by dissolving either one in water by boiling, and use this to mix the col-

ors with. One way is to mix quite heavy at first, with glue water, then thin with the same liquid until they work free.

If you use the small box water colors you may use them right out of the box. You may use a single color first, a black, blue, green, or any solid color, and as you become more proficient you may combine different colors, and shade with delicate colors, or properly speaking, soft shades.

The first thing now for you to attempt is the alphabet, using a plain straight letter.

See following cut.



Cut No. 2.

In your first practice do not try to be too exact. I ask, though, that you follow my general advice.

Hardly any two sign writers work the same, although with practical men results are about the same. Each one has some pet notion of his own. Hold your brush in a free, easy manner, don't imagine it will hop away from you, just an easy grip is all that is required. You will find it much the easiest way to letter.

Here is another good point to remember. DO NOT COMMENCE YOUR FIRST PRACTICE WITH A TIMID FEAR. Suppose your brush should slip, and blot a letter on your card, what of it? There is nothing lost and no particular harm done. You are using only card board or heavy manila paper, so a slip now and then will only cause you to be more careful next time.

Do not attempt a fancy letter until you have mastered the plain letter in every detail.

Keep every alphabet you make and look them over often as you practice, and if the previous ones have a defect, improve it in the next. Perhaps your A looks too narrow, or too wide at the bottom, or your M or W seems not to conform with the other letters. Strange as it may seem, hardly two letters when properly made, are the same width in the alphabet and your eye must guide you in free hand work, for free hand is the way that all modern sign work is done.

Do away with diagram and scale work as much as possible for your average lettering. It makes the work look too stiff.

Bear in mind, as previously stated, stick to your plain letters until you have them completely mastered, for to attempt others in the start would be only to make the work seem the more difficult for you to master. This is very important for you to heed. In preparing to letter a card, select some such phrase as "25 per cent. discount on our entire stock of dry goods for the next 10 days." See following cut for general arrangement.

Cut No. 3.

Now take a hard lead pencil and draw your top and bottom lines for each line of letters, very light of course. Make the initial letter of each line or word of importance larger than the rest. Such as "DRY GOODS" or in any catch

line. After you have your lines drawn you may sketch your letters or more properly your spaces, for sign writers very seldom, in this class of work, sketch their letters. Just sketch, in an off-hand way, your spaces about where each letter or word will come, then you will have a guide so as not to get one line too short and another too long, etc. After a little practice, you will hardly ever in your average work on cards have to space with a pencil at all, your eye will guide you.

A neat fine line drawn around the card, say about $\frac{1}{2}$ to one inch from edge will improve the looks of your work wonderfully, or you may strike one heavy and one fine line parallel around the edge, this looks well also. Sometimes, it is well to underline certain words with one or two parallel lines. Use a striper for drawing fine lines, in your first practice, after a while you will be able to save time by using your lettering brush on edge for lines. These ideas are given by way of suggestion just to start you. Many more will come to you as you get farther along.

PRICES FOR CARD WORK

For a full sheet, 22 by 28 inches, a sign writer charges from 50 to 75 cents, sometimes more according to the amount of reading matter and artistic display, a little less for a half sheet, and so on to smaller sizes. Price cards for window displays

can be made for from two to ten cents apiece. In card work you may use different colors of board, light tints, and put two or more together having a small shield on a larger one with a silver or a gold stripe around edge of each, then your reading matter or prices in center. There are many varieties of designs you can arrange. Use a little mucilage to stick them together. You may sometimes also use some flitter* of different colors on cards. After the letters are dry just strike a few little dashes here and there on the letters with varnish or mucilage and sprinkle on the flitter. It will stick only where the fresh size is. The rest will fall off when card is tipped up. Catch flitter on paper.

Letter a card in black, shade with light drab. When letters are dry put a few fine dashes or ornaments on the letters with a slow drying varnish and sprinkle with silver flitter. This makes a very pretty effect.

Nearly always shade to the left as you face your work and also use delicate colors. Never shade on the top of letters and but seldom to the right. Leave a small open space or margin between your shade and letter for general lettering.

Notice following cut of different letters and shades.

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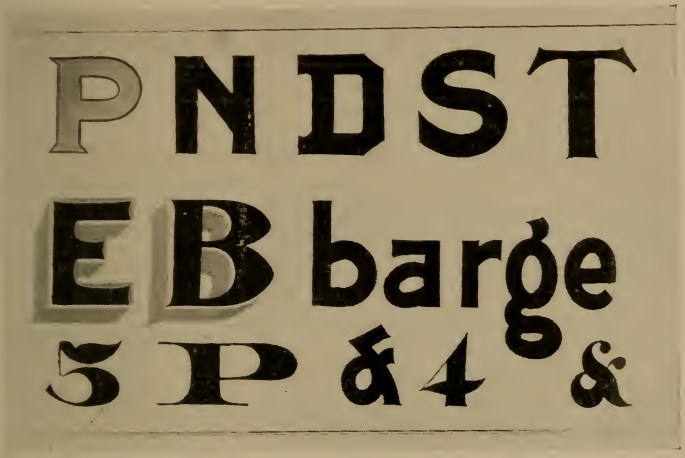
*NOTE—Flitter is a metal (if you get the genuine) and comes in very fine flakes. It may be purchased in almost any color imaginable; gold, silver, green, crimson, blue, copper and many other shades.



Cut No. 4.

By shading to the left you have less angles to contend with but more perpendicular lines. This gives more grace to your letters, and besides, balances them better. All practical sign writers shade to the left.

Shading nearly always adds to the appearance of letters, unless you have a large amount of letters to crowd into a small space, then it is advisable to leave off shading. Here is a good opportunity to state that it is quite as necessary to space your work right as to be able to make a good letter.

On card or cloth work it is well to remember that it is not the large clumsy letter that always shows up well, instead plenty of space or field around the letters throws out your work in a clear, attractive way.

On cloth work announcing a sale of anything, it is well to make your headline quite large, but the matter following may be made in smaller letters, except some important word or catch line.

For example note following cut.

GREAT SEMI-ANNUAL SALE.
OUR ENTIRE STOCK OF SHOES TO BE SOLD
AT SURPRISINGLY LOW PRICES.
Must make room for our SPRING GOODS.

Cut No. 5.

You may use your own ideas in the arrangement of card, cloth or any other work. I simply show a few styles for you to work from. There are a great many pretty arrangements which will, with a little ingenuity and practice suggest themselves to you, such as a curved or serpentine line occasionally, or a pleasing scroll or a neat dash thrown in here or there, or a line of letters slanted to the right or left or use a line of lower case* letters occasionally.

Gold or aluminum make pretty shades on card work, especially with such colors as black, blue, red, green, brown, etc. In mixing gold or aluminum be sure to use what is called Lining Gold Bronze and Lining Aluminum Bronze. These are ground finer than ordinary bronzes and will mix solid and work smooth, not so with common

*NOTE—The fourth, fifth and sixth lines in Cut No. 11, page 57 are lower case letters.

bronzes. Mix same as water colors for card work, and for work to be used out of doors, mix as a paint, using $\frac{2}{3}$ pale drying japan and $\frac{1}{3}$ good finishing varnish. A greater proportion of varnish and less japan will cause the bronze to show a less brilliant effect, the varnish serving to deaden or dull the natural lustre. The old process of first applying a size and using the bronze dry over this has fallen quite out of use. This method would be impractical especially on card or cloth work, because the size would strike right into the ground and the bronze would not hold. Anyway the liquid method is quicker, healthier, and on the whole, furnishes more brilliant and quite as durable results. Bronzes mixed this way, work well on cards, cloth, paint surfaces and in fact, on almost any kind of surface. There are ways of doctoring or making cheap bronzes look quite well by soaking the bronze over night in benzine. This draws the verdigris to the surface of the benzine from which it then may be poured. As often as any remaining traces of verdigris appear, wash out in benzine. Then mix with a japan gold size to a working consistency and apply same as any paint.

Always use the very best Pale Japan for a dryer in your colors. This is very important. There are a lot of cheap Japans on the market, which are simply worthless. They will curdle in your colors rendering them unfit for use and wear, besides causing your brushes to become lousy. This means

that small particles will cling to the hairs and your brush will not wash clean.

Then the brush will drum. This means that it will bulge out at the heel where the hair enters the quill or ferrule. Then your brush becomes balky and will not come to a chisel edge, consequently becomes worthless for lettering.

THE CARE OF BRUSHES

After using wash thoroughly in gasoline or benzine, draw through your fingers or a soft cloth to get them quite dry, then grease with a preparation of one half mutton tallow and one half common lard melted together. Be sure the hairs are all straight by pulling brush between your thumb and finger to a chisel edge, then carefully lay away on glass or any smooth surface. A flat box with a cover is the best place to keep them, then they are free from dust and dirt. This care applies to all lettering brushes.

You may if you wish use clear lard to grease with, it is quite good, but lard and tallow are better because the tallow will hold the hairs more straight than lard alone.

Common bristle brushes for coarse work are usually kept in a tub filled with water. Do not set brushes on bristle end but put a few clothes pins around edge of tub and slip handles in these so brush will hang. Should brush when new shed a few bristles on account of dryness, do not soak

bristles in water, instead tip brush upside down inserting handle letting the water cover about $\frac{1}{4}$ inch of the heel of bristles, soak 15 to 20 minutes. Of course after brush has been put in paint it is proper to keep the same in water. Never grease lettering brushes that have been used in water colors but simply wash out in clean water.

Of course you are not limited altogether to using water colors for card work, you may use what are called Japan or flat colors. These dry quick and also without a gloss. They are ground in japan, and need only to be thinned with turpentine, that is all.

Japan colors are the kind used by carriage painters. They are applied on top of two or three coats of lead which has been mixed so as to dry with an eggshell gloss, and are always varnished over with a good varnish. This produces a fine gloss and also preserves them for wear.

Oil colors can be used on some kinds of cardboard but they sometimes spread and do not stand out quite as well as japan or water colors. Oil colors work well on genuine sign writer's muslin.

Do not use water colors on cloth for outside work of any kind, for should rain touch them the colors will blur and run. Water colors, however, will work well on cloth and look well, but should be used only on work which is intended for inside purposes.

HOW TO DO CLOTH WORK

Now I will explain to you how to do cloth signs, how to mix colors for same so they will not spread, the proper cloth to use, the best brushes, etc., etc.

In the first place there is a muslin or cloth made exclusively for sign writers. This is the proper thing to use, it is well filled and has a nice, solid, white, smooth surface. Your colors not only work easily but look better by far than if you attempted to use common muslin; besides muslin is too fuzzy and transparent and you will (especially in the beginning), have trouble with your colors spreading, etc.

For your first practice. by all means use sign writer's muslin. You will have occasion. now and then, to use cheap, common muslin, but you will be better posted by that time and can make a better success of it. There are people who have a weakness for buying their own muslin when they want a sign painted on cloth. They generally get something a little better than cheese cloth and then expect a sign writer to produce a nice piece of work, never thinking that no matter how well the sign man does his work, or how tastily arranged, the cloth is so frail and transparent that the sign is a frost; and yet the sign writer has had to do twice the amount of work.

When you contract to do a muslin sign, always furnish your own cloth.

Of course cloth signs are made in all sizes, but they do not as a general rule average more than twenty feet in length; these are the kind that you usually see across store fronts. As sign muslin is generally three feet in width, the average cloth sign is made that width, although for a good showing some are made five and six feet wide. Should you use two breadths of cloth, sew the seam close to the edge and perfectly straight. This makes the smoothest looking sign. Your cloth won't wrinkle along the seam.

The best way to do muslin signs is to make a light frame, the size you need, then stretch your cloth evenly and tack. Now you have a nice, smooth surface and can prop up your sign any way you choose to make lettering easy. Use a fish line or any kind of small string to strike your guide lines. Use charcoal, the kind that comes in small sticks or the common soft lump charcoal to chalk your string with, this dusts off very easily after your work dries. Use a duster of any kind for this purpose.

Measure the width you wish your lines of letters, stick an awl or nail in the end of the sign, fasten your chalk line, run your charcoal along the string then hold it on the opposite end of sign where you have the same width marked and snap same as you would any chalk line. This gives you good straight lines. Curved lines may be marked off-hand with charcoal lightly, this will come easy for you after a little practice.

ABOUT THE PRICE OF CLOTH WORK

A good rule is to figure about 10 cents per running foot for each line in plain work, if shaded, 12 or 15 cents. If you build a frame, figure that extra. This is about the average price for cloth work.

This gives you a good profit as will be seen by referring to cut No. 12 on page 58. That cloth sign is 6 feet high by 14 feet long and was done complete in fifty-nine minutes, after colors were mixed and cloth was tacked on wall.

Three colors, black, red and green, were used for the letters, and some words were shaded, besides there were also some scrolls and dashes thrown in here and there.

You have about three and one-half lines, or about 49 feet of lettering, say 49 feet for example, at 12 cents, that brings you $5.88 for the sign complete. Now deduct 9½ yards of muslin at say 8 cents per yard, and about 25 cents for colors, this is a good margin for expense, look at your profit for one hour's work. We will say, for instance, that 85 minutes were consumed in mixing colors, tacking up cloth, and lettering same, what a fine margin of profit.

Of course you cannot in the start produce a sign of this size in that length of time, but suppose you should work say five, or even seven hours, can you

make better wages at anything else, or even as good?

You can after a little practice accomplish what I did or better.

The best brush to use on sign cloth is either a flat camel hair, bear hair, or a red or black sable, camel hair is the softest. Some like one kind and some another. After a short trial you will be better able to make a choice of one that suits your taste best. These brushes can be bought in all sizes from one-fourth to two inches or more in width.

For common muslin that has no filling you will find that a brush with coarse hair will work better than camel or sable.

To mix colors, for cloth, that will not spread, use dry colors, mix first with a varnish or japan, to a stiff paste, then thin with gasoline. These will hold good in rain and work free and easy. You may also at times use colors ground in oil, but use japan instead of varnish for a binder or dryer, and thin with gasoline. What little oil there is in them will rarely ever spread, the gasoline makes them set before they have a chance. (Colors ground in Japan or oil are put up in tin cans ranging in size from one-fourth to ten pounds.) Never use gasoline in your colors only for cloth work.

Card and cloth work is the kind you must work on in the start, for this reason, it is the best practice you could get, it brings the quickest and easi-

est money, and besides master these two then the rest will come a great deal easier for you, such as board signs, walls, and all kinds of large outside work.

To letter the glass of a store front will be just as easy for you as to do a card in your own shop. Here is a good opportunity to tell you how to mix your colors for glass lettering on store fronts, and also how to do aluminum lettering on windows, the kind you so often see. There is good money in this class of work. For lettering in colors, mix your colors with boiled linseed oil and just a little japan, you may add a little turpentine to make your colors work free and easy. Not too much turpentine or your colors will fade very quickly. Sketch your work with chalk same as card or cloth work, just a few guide lines here and there. After a little practice you will be able to do most of this kind of work with no guide at all except the top and bottom lines of each row of words.

For aluminum or gold bronze lettering on glass, mix equal parts of chrome yellow, ground in oil, and white lead with good japan and just enough turpentine to make color work free and easy. Some sign writers use what is called an oil gold size, with just a little good japan, yellow and white added, this makes a good size. It works easy and wears well.

When I have a window to letter in aluminum or gold bronze, I generally pick up almost anything I

happen to have on hand, being sure to mix my color so it will dry fast or become tacky soon after applying. Then I use a pounce made of a small wad of cotton tied inside of a piece of cheese cloth, dip in the powdered aluminum or gold and pounce over the size lightly when it becomes tacky enough not to stick to pounce, then rub off the surplus bronze from the glass lightly with clean cotton. Do not apply bronze when size is too wet and do not wait until it is too dry. After one or two trials you will get the hang of it so you can tell by touching the size your with fingers, when it is dry enough for the aluminum or gold.

Do not use but a small amount of linseed oil in your size at any time for it will dry too slow and besides kill the lustre of the bronze. If you have a very quick drying size and want it to dry slowly, just add a little linseed oil. Of course these pointers are for the ordinary sign work. As previously stated, the kind that brings quick money.

In fact, it is not the writer's intention to drill you on how to produce a gold leaf sign on glass worth from $50 to $150, neither does he expect you to learn this class of work in the very start. This kind of work takes practice and cannot be mastered until you are able to design good letters in the more common work.

I will tell you though how to do glass gilding. I will give you the best method so when you are ready to cope with this branch of work you will be

able to go at it as you should, thereby making your road to success as easy as possible. Gold leaf is a very fragile article, even a slight breath or a light draft will cause it to fly through the air. It takes something like three hundred leaves of gold to make the thickness of ordinary writing paper, so you may very easily imagine the thickness of each leaf. Gold leaf is put up in small books about $3\frac{1}{2}$ inches square. The leaves average about $3\frac{1}{4}$ inches. A book contains 25 leaves of gold, each leaf lies between two leaves of thin paper, so a book in reality has 26 leaves of paper including covers. To lift the leaves of gold from the paper for glass gilding always use (what is called) "a gilder's tip." This is a small thin brush generally made from camel or badger hair. These tips are very thin and are about three and one-half to four inches wide and the hair is anywhere from one to three inches long. When you want to lift a whole leaf, use the full tip, but when you wish to handle smaller portions some cut the tip in two or three pieces. This you may suit yourself about after you become accustomed to leaf laying. The tip must have electricity put into it before you will be able to lift a leaf of gold, this is accomplished by rubbing it lightly in your hair or by slipping between your hand and the back of your head, turning it over two or three times while going through this process. The latter will keep the hairs of your tip more even and consequently will lift the leaf better. After

charging the tip with electricity you will be able to lift quite a number of leaves before it will require being charged again.

In glass gilding you always have to use a tip, in fact it is the only way that you can lay leaf on glass. But for other kinds of gilding such as laying leaf on plain surfaces or raised letters, it is not necessary. The best practice for gilding, in the start, is to simply try laying gold leaf on glass, after you become familiar with this, then you may try forming letters.

Of course, in store fronts the glass is perpendicular, but the easiest way to lay gold on glass is to have the glass slanted or tipped about forty-five degrees, especially in your practice work.

To make a good size for glass gilding, take about one and one-half pints of distilled water put into a small covered enamel or granite pail, set on stove or over a spirit lamp and let come to a boil, now drop into this a small piece of Russian isinglass, about the size of a twenty-five cent piece, continue to boil until entirely dissolved, (isinglass dissolves very slowly) then let cool and you are ready to try gilding on glass.

NOTE—Never boil size in a tin vessel.

HOW TO HANDLE A BOOK OF GOLD LEAF

The best way to handle your book of gold is to cut a small piece of card board or cigar box cover about the size of book. Lay your book on this and

turn back each leaf of paper as you use each leaf of gold, be sure that it does not lift the gold with it, go slow. Now crease or fold leaf any width you choose, according to the size or piece of gold you wish, run your finger nail along edge of crease on gold, this cuts the gold. (Some use the first finger and some the fourth.) Then you may cut this strip into two or three pieces again by running your finger nail from the crease to the outer edge of the book. Now you are ready to lift these pieces with your tip as previously stated.

HOW TO PREPARE GLASS FOR GILDING

In preparing your glass be sure there is not a particle of dust or dirt left on it. You should always wash it with water and whiting with a little ammonia or alcohol added, this will insure a clean, polished surface which is absolutely necessary in this class of work. Then flow on your size with a small one or two inch, flat, camel hair brush, or more properly, a gilder's wash brush. Now pick up a small piece of gold with tip, hold tip flat with glass, having gold next to glass, as soon as tip is nearly ready to touch the glass your leaf will jump or pass from the tip onto the glass.

After laying one or two pieces, quit, and let your size dry, do not touch it and you will find that the gold will burnish of its own accord. After it is dry should it appear cloudy or streaked, just pass over the back of it with your size and let dry again. If

it is still cloudy your size is too strong or heavy, add a little more water, distilled of course, and try some more leaf; you will find when you get your size the proper strength, the gold will burnish like a mirror, without a cloud or streak in it.

This is good practice and will enable you right in the start how to become familiar with getting your size the proper consistency.

While you are laying leaf it will sometimes part or crack in places, don't mind that, for after you have the leaf all laid, these places may be patched afterwards. Soon as you have your first application of leaf in place and it is burnished and thoroughly dry, you will find that there are a great many edges of surplus leaf sticking up, these can and must be removed by rubbing over the gold very lightly with dry absorbent cotton, or a soft gilder's brush. This must be done lightly or you will scratch the gold.

Now you are ready to patch the places where the leaf has cracked and also any small holes that may appear. This is done by applying the size same as you did in the start, but do not flow on the size too many times or you will loosen the first application of leaf.

Of course, gold leaf as well as silver is always used on the inside of plate glass or on the back, and is backed up with paint to hold it in place.

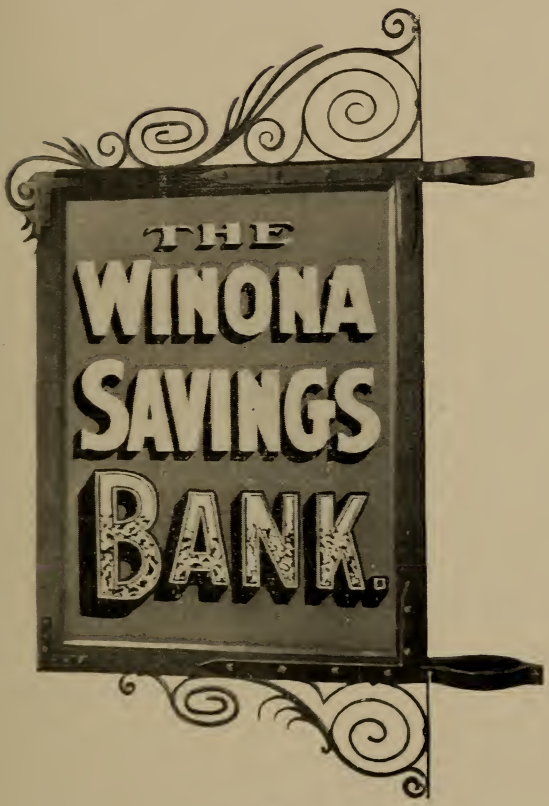
After you are acquainted with the method of lay-

ing leaf, you may then attempt a few letters on glass.

Some use a pattern, this is made by first drawing your letters or design on rather a tough manila paper exact size, then use a small tracing wheel to run all around the outlines of each letter, lay a common desk blotter under your paper while you trace, this will make a clear prick puncture. After you have the pattern all traced, turn over and smooth off with a No. 1 or 1½ sand paper. Take some whiting and tie up in cheese cloth for a pounce. Now place your pattern on the front or outside of glass so it reads frontwards, pounce all over each letter, being careful not to let your pattern slip or move, then remove pattern, now you have a transfer of design on the glass, lay your leaf on the opposite side of glass, let it run over the edge of each letter and no matter if the edge is rough, you cannot make it any other way.

After getting the letters all covered wait until your size is perfectly dry, then proceed as formerly rubbing with cotton or gilder's brush, then patching, etc. After work is all dry and patched, you may flow over the gold, with your size slightly weakened with water; this adds an improvement to the burnish.

It is well now to let your work stand six or eight hours before proceeding with it. Then take the pattern, and put on the glass same as before, only on the opposite side. Your pattern will now



Cut No. 6.

be directly on top of the gold, and will read backwards same as any letter would from back of glass. Get your pattern in the exact position as it was on the front of the glass, and pounce same as before, only you had better use a pounce made from powdered charcoal instead of whiting, this shows clearer on gold than whiting. Now you have your outlines to go by, and may proceed to back up or paint your letters directly on top of the gold with a chrome yellow ground in japan and mixed with about $\frac{1}{3}$ good spar varnish, thin with turpentine and use color quite thin, be sure to cover every spot of gold that is to be left on the glass and form your letters very carefully.

After your first backing is in place, let dry from seven to ten hours.

Now take a little clean cotton, dip in water, then dip in a little whiting, and proceed to wash or rub off the surplus gold which sticks over the edge of your letters, be sure to rub entirely clean before you attempt to go further, you now have a clean, gold letter and may proceed to outline same with a fine line of black, blue, green, red, or any other color you choose, adding your shades afterwards. After this is thoroughly dry, back up your work with a good, solid color mixed with pure spar varnish, always using japan colors. After your sign has stood two or three days you may run a small line of spar varnish around the edge of each letter or design letting the varnish come partly on the

letter and partly on the glass. It is transparent and will not show, besides it makes the edge entirely waterproof and excludes the air, consequently makes your work wear better.

When your gold is laid and you wish to use pattern second time on the back or inside of glass, you will find that you can see the gold letters through the pattern, consequently it is easy to get the pattern in place.

It is a good idea with a large pattern especially, to have some one help hold it in place, another good way to insure getting pattern in place the second time is: when you use the pattern first time, just cut two square holes one in each end, pounce over these being careful not to rub off, when you remove pattern. Then when you put the pattern inside after leaf is laid, have the holes come directly over the first pounce imprint.

(NOTE) The best wheel for tracing any pattern is a harness makers stitching tracer, these are small and are easy to form short curves with, besides one will last longer than a dozen common tracing wheels.

Another good way is to do away with the pattern, instead draw your work out on the front of the glass with chalk (rub glass off with ammonia or alcohol first; this causes the chalk to mark good) then on the opposite side of glass draw a fine line, of any color you choose, clear around all your letters, let dry, then flow on the size, fill in the gold same as before, now back up the letters

being careful not to run the backing quite to the outer edge of your first outline, if you do there will be small particles of gold outside of your outlines after rubbing off the surplus gold. Shade as before, back up again, then put varnish line around edge, after letters are thoroughly dry.

When you shade, especially with delicate colors, you will usually have to put on two coats, otherwise the backing will show through and dull the shades making them look cloudy.

A very pretty gold letter is made by making the outlining in gold, then run in some nice ornaments (the same) on inside of letters, then clean the surplus leaf away, then fill open space with bronze mixed with japan and varnish as previously given, this produces a very pretty contrast, making the ground or inside of letter look like rough gold.

Notice cut No. 6, page 31 the word BANK is made in this manner.

I could tell you dozens of ways of how to make and arrange different styles and designs, but these few suggestions will start you right and as you progress, keep your eyes open, look at all signs you come upon, study them, get different sign writers' ideas and designs, sometimes two or three designs worked together in a combination make a very pretty sign.

You may learn a great deal by observing closely other people's work and methods.

Quite a few glass gilders use oil colors instead of Japan colors, if you do, be sure to use in them, the best japan for a dryer, and terpentine for a thinner, these hold quite well.

(NOTE) At all times, and very especially in gold leaf work, on glass, use only the very purest colors and varnish that money will buy, for glass is practically non-porous, so to make your work hold and wear well, you must use only pure colors.

Never have any oil in first color that comes directly on top of leaf for it will cloud the burnish.

Silver leaf is laid same as gold, only have the size a little stronger.

For glass gilding do not use varnish in colors that have oil in them or visa versa.

(NOTE) Should your tip not lift the leaf readily after rubbing in your hair, you may remedy same by rubbing in your own hair a very small amount of vaseline.

Some sign writers use a tip for laying leaf on board signs, raised letters etc, as well as for glass gilding.

At all times in working around gold leaf, be careful not to scratch it, for gold mars very easily, even a loose sleeve or a coat corner pulled over a letter will leave its mark.

It is a good idea especially in warm weather, to rub a little whiting on your hands, it will prevent the leaf from sticking to them.

Never put less than two coats of paint back of letters in glass gilding, three are better, always allow your colors to dry well between coats, more time is required for oil colors than japan.

For lettering on the outside of glass, do not use varnish in colors that have oil in them or visa versa.

In using clear oil gold size, you may hurry its drying along by adding some good japan. The more japan you use the quicker it will dry. You will soon become used to the proportion as you practice.

TO LAY GOLD LEAF ON DIFFERENT SURFACES

For laying gold leaf on tin signs, board signs, raised letters, iron, etc., be sure to have your surface built up with rather flat colors and thoroughly dry. Then use an oil gold size, you may procure this at any wholesale supply paint house.

These sizes are made to dry in different periods of time, some dry sufficiently in eight hours, some in twenty, and some even longer. I have used sizes that could be left eight or nine days after applying before the leaf was laid.

Never lay your leaf on wet size, it kills the burnish, sign men call it drowning the leaf. Rub the end of your finger on cloth so it is dry and not sweaty, touch your size now and then, as you are doing your other work, and when it gets quite dry it is time to lay the leaf, remember that your size must be so dry that you can detect only a slight adherence when you touch it, and must not show your finger mark.

Gold is laid by turning back each leaf of paper, then turn book upside down and press lightly on surface, keep repeating until your surface is all covered, now pat down with clean absorbent cotton, then rub lightly with a gilder's brush until all loose leaf is removed. The surface will then assume a clear burnish, this done, the gold is finished ready for wear.

(Note) Gilders brushes are made in sizes raging from No. 0 to 10. A No. 7 or 8 can be used for most work.

Never varnish over gold, it is but seldom done unless on delivery wagons etc., or a varnish surface sign.

To cut around a gold letter is done the same as around a colored letter on any flat surface. Never use silver leaf for out-door work, instead use nickel or aluminum. Silver turns black when exposed to the weather. There are also japan gold sizes made for laying gold leaf, aluminum, etc., these dry quick and produce a fine burnish. They are especially good to use for work which it is desirous to finish quick.

Some sign writers use this kind for almost all purposes (except glass) both for inside and outside work. Nickel and aluminum leaf is laid on surfaces same as gold, only it is heavier, so you must have your size a trifle more tacky. Aluminum or nickel leaf is too heavy to use for glass gilding.

(Note) For gold leaf work on glass, it is a good plan to mix or grind your colors on a pallette with a pallette knife. It causes them to wear better.

PRICES FOR GLASS GILDING

For glass gilding you may figure from 50 to 75 cents per running foot. For letters anywhere from 3 to 6 inches in height, as a usual thing, 50 cents per running foot is the least that gold can be laid for, with a reasonable profit. If you have from 25 to 50 feet and should use a six inch letter, you would figure about 65 to 75 cents per running foot. If a three or four inch letter, you could lump it off for about 50 or 60 cents. Some sign writers figure a certain amount for each letter, but no matter how you figure you should make each lineal foot bring about the amount previously stated.

INSTRUCTIONS FOR CUTTING IN LETTERS

In your first practice you must learn to paint letters solid on a surface, after you master this, you will find in a great deal of your work that it will be to your advantage to cut around your letters or produce letters by "cutting in," as the sign writers term it. This method is the one used almost entirely for wall work,

Cut No. 7.

such as the Battle-Axe signs, General Arthur Cigar signs, and in fact, nearly all wall signs.

Suppose you have a board two feet wide and twenty feet long and wish a solid white letter with a black back ground, proceed thus: Shellac all small knots and pitch, with common orange shellac. This is applied same as paint, it dries very quick and prevents the knots or pitch from coming through the paint. Now mix some white lead with $\frac{1}{3}$ oil and $\frac{2}{3}$ turpentine, just a dash of good japan, and add just a little lamp black ground in oil, to give it a light slate or lead color, this is for the first coat. The next two coats may be painted with pure white lead mixed half and half with oil and turpentine, allow a day or two between coats.

(NOTE.) One coat of light drab or slate color and two coats of pure white produce a more even white than three coats of pure white alone.

After all is dry strike your chalk lines with a string for top and bottom of letters, then space your words and letters and proceed to cut around them. In this class of work you may lightly sketch out your letters with chalk, after sign is dry dust off chalk with duster, same as in cloth work. The background or color used for cutting in should dry with a gloss, this means use quite a little oil in the color. Never forget to use just a little Japan in nearly every color you use, except those which are ground in Japan, they need none. You may smalt the back ground of the white letter sign same as a

gold or aluminum sign, if you wish, of course this will give you a little more money for sign than a plain painted back ground.

In gold leaf or aluminum work you prepare your boards with about three coats of flat lead color, when dry, sand paper lightly, and lay out your letters carefully with chalk. After letters are marked out dust off surplus chalk with duster, the outlines will remain. Now coat in your letters with gold size. (Either the oil or japan.) When tacky enough, lay your gold or aluminum leaf, pat lightly with cotton and burnish with gilder's brush. In a few hours you may cut out your letters same as white and black work. Usually gold and aluminum are finished with a smalted or sanded back ground so your color must be mixed quite heavy and also correspond in shade to the smalts, if a black smalts, use a black color, a green smalts, a green color, etc.

Your color must be mixed so as to dry slow, consequently the smalts will look better and hold better. Most sign writers use just a little lead in their smalting colors, even in black, this causes the smalts to hold well for the paint then dries very hard. The best way to smalt a sign board is to lay it on some paper on the floor after having the back ground all laid in, now take a flour sieve, one that will nicely let the smalts through and sift over your sign, letters and all. Be sure to have every portion covered, let lay about two or three hours, then tip on edge and the surplus smalts will fall off, leaving a

nice sanded back ground, pick up your surplus smalts and put in box to be used over again on other signs. Smalts may be had in all colors, from any paint supply house, and range in price from 4 cents to 10 cents per pound. When purchasing smalts be sure to get the fine grade and the best. Some are too coarse to wear well and look well. At all times spread your colors evenly and be sure to mix well, this is half of the wear, the colors must not be laid on heavy only for smalts, otherwise brush out well.

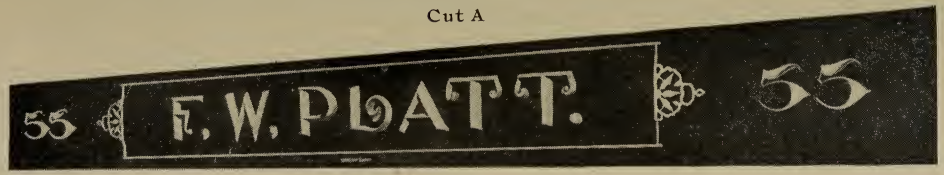
All round letters, such as O, G, S, or any which have a round top or bottom, should be just a trifle higher than the rest of the letters in any word, if made the same height they would look shorter. Your eye will guide you just what proportion to extend over line according to the height of letters you are making.

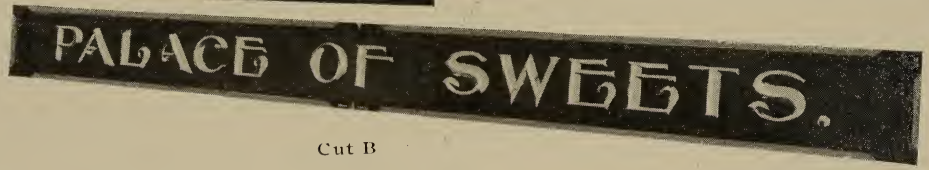
(NOTE.) The expert letterer is not entirely governed by arbitrary rules of his art, his art instinct guides him.

HIGH LIGHTING ON LETTERS

Gold lettering in some kinds of work should be high lighted, with Naples yellow, or chrome yellow and white mixed. By high lighting is meant a thin line on top of the letter and along the right hand side. This line is really not a shade but a color or stripe put on the letter extending just to the outer edge as you will notice by referring to the cut on

Cut A





Cut B

page 15, letter E, first letter in second line is high lighted.

In speaking of cutting around letters or blocking in, I want to say that this method for some classes of work is far ahead of any other, for example, take dead wall work, suppose you wish to use several different colors, for the letters and your field work or back ground is to be a black, blue, green or any other color, by using this system you finish the whole sign as you go along and make a nice, clean piece of work, with all edges cut clean, etc.

A dark color will cut clean around a light color, where the reverse would be impracticable, that is why the cutting around system is so much used, a great majority of signs are made with a dark back ground. There are so many different styles and kinds of letters and designs used in wall work that it would be almost impossible to give a set rule for doing this work. Whatever you undertake, be sure to make a good, attractive piece of work, having all edges clear and clean cut. There is a saying among sign writers that one of the best ways to test the ability of a sign writer is to put him on a piece of wall work with two simple colors white and black. This class of work will show where he is lame, if at all, in regard to spacing and general arrangement. A variety of colors to a certain degree tend to hide a sign writer's faults in lettering, which otherwise would show up very prominently.

HOW TO DO WALL SIGNS

In wall work lay out your letter first in white, yellow, pea green or any light color. You need not try to cut a smooth edge, only get on enough color and even, so that when you cut around them there will be no open spaces. After you cut out the letters, you may now run a line around edge and at the same time shade right over the back ground, supposing of course, that your back ground is green, blue, or any color besides black. Use black for your shade. Should you make your sign with a black back ground no shading is necessary. See cut on page 45, for example of a black and white sign This sign in size on wall is 21 feet high by 26 feet long. Of course, with wall work the same as any other, a sign writer can use his own judgment according to his ability in combining colors, shading, etc. Wall signs are figured at the rate of from 3c to 5c per square foot.

(NOTE.) On page 61, you will find a list of harmonious colors and also how to produce different colors and shades.

HOW TO MIX COLORS FOR WALL WORK

Use dry colors and mix with one-third linseed oil (either boiled or raw), and two-thirds naptha or benzine. This is the general proportion used by all sign men. This proportion will set quick and the result is that you can cut a clean, smooth edge and colors will not blend together and look streaked.

In attempting your first wall work or any kind

where you wish to cut around, or cut in a letter, you had better use the style shown in cut on page 6. This is called a block or square letter, because every letter is made with straight lines. No curves or round corners to contend with. It is in reality

Cut No. 9.

the easiest letter to make when you wish to cut around. Where you simply paint the letter on top of a surface, I think the round is somewhat the easiest, although you may use either style you choose.

HOW TO FROST GLASS

To frost glass for practical use, take white lead or zinc, add Damar varnish and thin with turpentine.

Apply a light coat with a clean brush and stipple while wet. This answers well for general purposes.

TO MAKE TRANSPARENT SIGNS ON GLASS

For a box sign with a light inside, to be read at night for lodge rooms, restaurants, etc., have a tinner make box or frame out of galvanized iron any design you wish, so that the glass may be removed from the outside. Have tinner put a number of small prongs around edge which may be bent down on the glass after it is in place. This is the general method unless you wish to change the glass three or four times a week. In that case have each glass framed with a small frame, and make box so these may be set in place with a couple of catches, or have loose slides to shove frame into.

Here is an easy way to make a good looking transparent letter on glass. Suppose you wish to make the word "Restaurant," for example. On the outside of the glass make a block skeleton letter by outlining with aluminum using about a $\frac{1}{4}$ inch outline, this leaves the letters open in the center. When dry, turn glass over and coat back ground with some dark color, cut around the outside of letters but be careful not to run your back ground over into the opening of letters. Two coats are generally required to make a nice, solid back ground. When this is dry, frost the inside of letters with a stippled white. The frosting of course, is done on

the background side. This leaves the aluminum outline on the front side of glass and the background and frosting on the back side. This method makes a very neat and practical sign.

TO LETTER ON OIL CLOTH

Use oil colors mixed with turpentine and japan, or Japan colors mixed with varnish and turpentine. To prevent colors from crawling, always rub surface of oil cloth briskly with a clean cloth soaked in gasoline or benzine. Or, take just a little fine powdered pumice stone and water and rub surface lightly with a piece of soft felt, then dry. This removes the gloss slightly and colors will work fine.

(NOTE.) It is not always necessary to use a brush to stipple frosting with, you can produce quite a good frost effect by pouncing color while wet with a pounce made of cheese cloth tied loosely around some cotton. Pounce until surface looks even. When stippling frosting never drag your stippler but hit the glass with a straight chug same as you would use a pounce.

HOW TO TEST LEAD

A simple method for testing white lead is to put just a small portion on a match head, light another and hold to first match. after the sulphur is completely burned off, if the lead is pure, you will discover small beads all over the first match head, looking like small diamonds, or quick silver. This is the pure lead, formed in small bubbles or beads. Pure lead only will act this way, others which are

adulterated will only appear as so much charred mass. This is about the easiest and simplest method known.

HOW TO LETTER GLASS IN OFFICE DOORS

Hallways, as a rule, being somewhat darker than the office rooms, it is advisable to use a straight black for your letters. The glass being transparent, black shows up to the best advantage, in fact, it is almost entirely used for such work. The smooth side of chipped, Florentine or ground glass is generally put on the outside or hall side of door. So naturally you letter on the outside or hall side in most cases. Strike your lines with chalk, or better yet, there are pencils made for marking on glass, some mark black and some mark blue. This is the best thing to line your glass with. It will rub off after the letters are dry. It shows better than chalk. The best, easiest working and most solid color to use is a refined lamp black ground in oil. Mix quite heavy with one-third oil, two-thirds turpentine and quite a little good japan, for lamp-black is slow drying. This makes a nice, solid glossy letter and the light will not show through as would be the case with some blacks. You may finish your glass with one application when using this mixture. Some like just a little Prussian blue or drop black ground in oil, put in the lamp

black, it works well and makes the black look somewhat richer.

HOW TO MAKE RAISED LETTER SIGNS

Paint your board the same as any sign, for the ordinary kind, have edge champered, see cut B on page 42, or leave edges perfectly square and use a small moulding with ornaments on face of sign around letters, see cut A on page 42, or you may use a moulding in imitation of rope or any other design, with or without ornaments, to suit taste. Some sign writers of but little experience use a genuine rope for ornaments and mouldings on signs, while these do very well for some kinds of inside decorations, (although it is an old idea) it is no good for outside work, does not hold color, shrinks, warps, etc. These kind of ornaments are only used by the inexperienced and are a good thing to leave alone. For a neat, plain piece of raised letter work, I refer you to cut on page 38. This board is 19 feet long and 20 inches high and has a raised letter 10 inches high, by $1\frac{1}{8}$ inches thick. This same size letter could be used on a board 24 inches wide and would look fully as well. Always give your sign plenty of back ground.

You may buy raised letters, any size, from firms who make a specialty of raised letters, or you may have them made at your home mill, or make them yourself. I generally have mine made at the mill,

at least sawed out, then I finish them off myself. If you wish to have the mill saw them out, simply make a pattern of the letters out of heavy manila paper. The mill will mark them out on a board prepared for that purpose and saw them out. If you wish a straight champered letter they can make nearly the entire champer on a shaper, what little remains undone you may finish with a sharp, flat chisel and some fine sand paper or the mill will finish complete for a few cents extra.

(NOTE.) When making patterns, mark on each letter pattern how many are needed. For example, should your sign have two N's and three C's, mark same on pattern and the mill will duplicate the number pattern calls for.

By a champered letter is meant a square or block letter with the front corners taken off. To make a letter look best always cut your champer with a sharp slant, say about $\frac{1}{4}$ inch deep on the side of letter.

The round finished letter shown in cuts on page 42 is a more expensive letter, requires more gold and more labor. These were made by me complete. If you are quite handy with tools you may do the same, if not, you can as previously stated, buy any size or style of raised letter you wish, finished ready for the paint. Some firms issue catalogues of different styles of letters so you will have no difficulty in getting them.

HOW TO LAY OUT AND FASTEN LETTERS TO BOARD

Some nail through from the front and some mark around them after they are laid in place, then remove letters and bore from four to six holes through board for each letter, then fasten in place with a thin screw, from the back. Be sure that the screw is $\frac{1}{4}$ of an inch shorter than the combined thickness of board and letter. Give the letters and board at least one coat of paint, before you fasten letters in place. Putty with glazing putty all holes or defects when first coat is dry, then paint letters and board at least two more coats. Sand paper each coat lightly with fine sand paper, being careful not to rub off the corners. Then gild the letters as given in previous rules for gold leafing surfaces. Lastly put on the smalts and sign is finished. I nearly always fasten wood letters by nailing, it is the easiest and quickest way, besides answers for most purposes.

When you fasten raised letters to the board by nailing through them from the front side, use a thin six-penny wire finishing nail, and sink the head very lightly with a nail set, never drive a nail deep enough to mar the letter with the hammer head. Putty holes with glazing putty, this is the best putty for all holes and rough places, use an ordinary putty knife.

HOW TO MAKE GLAZING PUTTY

Glazing putty is made by taking dry white lead, sifted mix with it $\frac{2}{3}$ good japan and $\frac{1}{3}$ rubbing varnish. Pound this on a hard, smooth board or marble slab with a hammer. Be sure to pound quite a while so as to make it very smooth and do not get it too thin. It must be the same consistency as common putty, after it is finished put in a small pail or cup and cover with water, to keep it fresh, otherwise it would soon harden and become useless. This dries much quicker and harder than common putty. It is called glazing putty for the reason that carriage painters use it to glaze over the surface of buggy bodies using a putty knife. It is put on as evenly as possible and after hardening is sand papered down to a smooth surface with fine sand paper.

PRICES OF RAISED LETTER SIGNS

Raised letter signs of the ordinary kinds for store fronts, etc., may be figured anywhere from $1.00 to $2.00 per running foot complete.

There are firms who make letters of different metals, flat and raised of every description. These are fastened with pins or screws to all surfaces except glass. On glass a cement is used.

Firms who furnish these letters will send the pins, screws, or cement to fasten letters with, according to the surface you wish to place them on. When you wish to fasten raised metal letters to

glass, first lay out pattern on glass, then spread your cement evenly on the back of letter then press hard on the glass, working letter slightly until it is tight, then put a small piece or two of beeswax under bottom edge and clean off surplus cement,

Cut No. 10.

which has worked out over the edge of letter. To clean use a small pine stick and soft cloth, saturate your cloth with a little turpentine or benzine.

HOW TO MAKE STENCIL PAPER

To make a good stencil paper buy four or five yards of extra heavy manila paper. This costs about

3 or 4 cents per yard, then use boiled linseed oil with plenty of japan and a little turpentine. Lay paper on floor or tack on side wall. Coat one side and when dry turn over and coat the other. This makes a good tough stencil paper and the cost will be about 5 to 7 cents per yard. To buy the same ready prepared would cost 15 to 25 cents a yard. Stencil paper is used for decorative purposes such as borders and ornaments of all kinds. Scrolls, etc., are marked on the paper, then cut out leaving small ties here and there to hold pattern together.

Should you wish to make a lot of small signs to use for country advertising, say 100 or 200, simply coat boards white or any light color, two coats, then lay out the reading matter on stencil, cut out letters, leaving a small tie here and there, see cut on page 53, then lay your stencil on the board and run over the letter back and forth with a small felt-covered roller, previously run through paint on a slab, same as a printer would use it in ink. These rollers may be purchased in different sizes. For most purposes a roller about 5 inches long by 2 inches thick will answer. Cloth or felt may easily be renewed as often as required. If you wish to make stencil signs look like hand painted, you may paint out or cut the ties afterwards with a small brush, it does not take long, though for cheap and quick work this is unnecessary.

(NOTE.) Always cut paper stencil on glass with pocket knife.

For this work, mix your lettering colors a trifle

thinner than printer's ink, but not too thin or they will look too transparent. besides there is danger of their running. It is a good idea to put a small thin frame around edge of stencil to keep it straight. where you have a lot of signs to make it is easier to handle. Leave a good margin around edge of stencil.

Should you wish two or three inscriptions for your batch of signs simply make two or three stencils. Do not give a man a choice of more than 4 different inscriptions on 200 small signs. After a little practice you can do this work very rapidly and make easy money. If you wish to advertise in a cheap way for firms, out in the country, on fences, etc., use about ½ each of lead and whiting mixed with a little japan and linseed oil for a binder, thin with gasoline. Coat the white on first then letter right over same with oil lamp black mixed with japan and gasoline. Use a small, flat, one-inch bristle brush for lettering. If you wish a light lemon back ground, put in a little chrome yellow, if a pea green, put in a little chrome green, etc., etc. Figure this work at about the rate of $4 00 for one dozen signs and always try to get at least two dozen signs from each firm. Do not make signs on fences longer than two board lengths. Shorter is better. In any sign work have your inscription made short as possible and to the point.

You may contract to advertise for twelve or fifteen firms and go out for a week and make easy money.

Your material costs but little and a rig will not cost more than $1.50 or $2.00 per day, so you see what a nice margin of profit you can make. This class of work is good practice in the start and is easily handled.

GLASS SIGNS

If you wish to make an attractive sign on glass, such as cigar signs, etc., to hang in stores, letter front with a size and run a stripe or two around edge of glass. Then pounce on aluminum or gold bronze or a part of each. After dry clean off surplus powder with cotton and coat back of glass with any dark color, such as black, green, brown, blue, etc. Hang with small brass chains. You may outline letters if you wish.

HOW TO MAKE SMALL SIGN BOARDS

For a small single or double face sign anywhere from 18 to 36 inches long and 10 to 20 inches wide procure a piece of galvanized iron smooth, without a crinkle and frame with a light wood frame using a small quarter round for inside of frame. This makes a good, light serviceable sign, can be finished quick and will never crack or warp. Before applying paint, clean with benzine to remove all grease. Finish same as wood sign, only use your ground colors a little more flat and you can get along with a coat less. You may make them also with a wire

MAJESTIC RANGES,

DOES YOUR OVEN BAKE ON THE BOTTOM?
OR ONLY ON THE TOP AND MIDDLE SHELVES?

Hundreds of satisfied users in this city can testify that the **MAJESTIC** ovens bake well in any nook or corner.

CALL AND EXAMINE AT

H. BEHRENS & CO.

58 W. 3RD STREET.

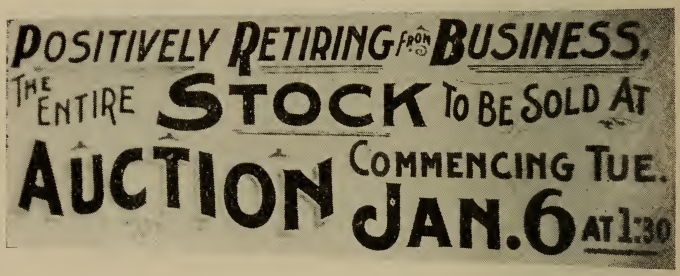
Cut No. 11.

SIZE 6 x 18 FEET.

turned edge. To make an attractive, quick piece of work, finish back ground with liquid aluminum and letter with an oil black. Finish frame in black also, or you may cut around the letters making a black back ground, this is also done quick and looks well. Smalt same as any sign.

TO BUILD LARGE SIGN BOARDS

The best way to build large signs for store fronts, etc., is to use good $\frac{7}{8}$ inch lumber, well glued. Run



Cut No. 12.

frame of 4-inch strips, $\frac{7}{8}$ of inch thick clear around back, using plenty of screws, and also have plenty of cross pieces on back to keep sign from warping and checking. This looks like a solid 2 inch thick sign, it is lighter to handle and will last longer than a thick board would.

BULLETIN BOARDS, HOW MADE, ETC.

Bulletin boards are made out of 3-inch matched

flooring, run up and down on frame work made out of two by fours and moulding around front edge. These are sometimes made in sections, and can easily be taken apart after lettering. The one shown on page 57 is made in three sections, each section being 6 by 8 feet, making board complete 8 by 18 feet. The three inch boards used in the construction of bulletins are placed perpendicularly for the reason that they look better and shed water easier than if placed otherwise. Bulletin boards are finished in all colors to suit the subject, reading matter, etc. In this class of work use but a very little turpentine in your colors, it causes them to fade quickly when exposed to the weather.

NOTE. Colors mixed with oil, dry slow and with a gloss. Colors mixed with turpentine dry quick and without a gloss and are called flat colors.

CEMENT FOR FASTENING LETTERS ON GLASS

Take dry white lead, sifted and free from lumps, add sufficient coach varnish and mix to the consistancy of putty; it is improved by being kept a few hours before using.

Add enough dry lamp black to make it a slate color for metal letters or enough Indian Red to match color of backing for Glass Letters.

FINAL REMARKS ON SPACING

Do not string your letters out too much, have the letters and words spaced so that each word appears distinct or somewhat exclusive. Some sign

writers letter on cloth or cards in a manner which causes the sign to look more like a conglomeration of letters without much of a display or meaning.

In different words the letters come in such form as will make it necessary for you to put more space between some than others, for example, take the word **PLATE,** you will notice there is a large open space between the **L** and **A** simply because the peculiar construction of the letter **L** leaves an open space, and especially that the letter **A** follows makes the space still more open because the **A** is narrow at the top and consequently falls away (so to speak) from the **L.** Now to close this space as much as possible, make the bottom of **L** as narrow as you can possibly allow and crowd the letter **A** close as you can and still not make them look too crowded. The point to remember is to have the work always balance well.

Should the letter **T** come after the letter **L** you have a better chance to fill the open space, for example take the word **PELT,** part of the letter **T** fills the open space after the letter **L.**

In general lettering you must allow about two or three times as much space between the words as between the letters of each word. As previously stated your eye will guide you in the matter of spacing after a little practice.

Harmonious Color Contrasts.

Red with green.
Blue with orange.
Deep blue with golden brown.
Deep blue with pink.
Chocolate with light blue.
Chocolate with pea green.
Black with warm brown.
Black with warm green.
Deep red with gray.
Maroon with deep blue.
Maroon with warm green.
Claret with buff.
Yellow with violet.
Violet with pale green.
Violet with light rose.

Tints Produced by Combination of Colors.

White, yellow, red and black make umber.
Vermillion and black make turkey red.
Ultramarine blue, black and white makes slate.
White and ultramarine blue make sky blue.
Medium yellow, red and white make sienna.
Orange, lake and purple make russet.
Ultramarine blue and lake make purple.
White and lake make pink.
White, ultramarine blue and black make pearl tint.
Medium yellow and red make orange.
Medium yellow and purple make olive green.
Lake and purple make magenta.
Red, black and medium yellow make maroon.
White and purple make lavender tint.
White and black make grey tint.
Lemon yellow and bronze blue make grass green.
White, lake and lemon yellow make flesh tint.
White, medium yellow and black make drab tint.
Bronze blue, lemon yellow and black make dark green.
Red, black and blue make dark brown.
White and medium yellow make buff tint.
Dark green and purple make bottle green.
Carmine and lake make bright pink.
Carmine and blue make violet.
Carmine and yellow make amber.
Red and green make olive.
Red and orange make brown.
Blue and black make dark blue.
Blue and yellow make green.
Black and white make gray.
Black, white and blue, equal parts, make blue-black.

How to Detect Adulterations.

1. By Means of the Senses.—Obtain a sample of pure Linseed and adulterate it yourself, and thoroughly familiarize yourself with the taste, smell, feel, and general appearance of the oils so treated.

By rubbing a few drops of the oil to be tested vigorously in the palm of the hand, the presence of fish, rosin, and paraffine oils can readily be detected by the smell.

2. By Means of Chemistry.—Shake equal parts of oil and muriatic acid, commercially pure, in a small white glass vial or bottle, and allow to stand 15 minutes to 2 hours, and look for results in the following table:

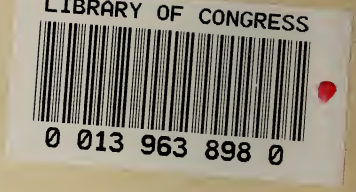
		Upper Stratum	Lower Stratum
	Pure Linseed Oil	Muddy Olive Green	Pale Yellow
MINERAL OILS	Rosin Oil	Nearly Black	Almost Colorless
MINERAL OILS	Brown Neutral	Muddy Brown	Almost Colorless
MINERAL OILS	Deodorized Naphtha	Muddy Yellow	Almost Colorless
ANIMAL OILS	Fish Oil	Decided Deep Red Brown	Deep Red or Cherry Color

FINALLY

Be courteous at all times when soliciting business and most people you meet, will extend the same courtesy to you.

I believe now that I have given all the information in a general and practical way, which is necessary for your guidance, and I feel that by a careful study of this book and a little practice, you may make a start in life that you will never have occasion to regret. You have, as previously stated in the beginning of this book, the practical methods of a man of many successful years of actual experience in the sign business. Trusting that this book will be of great assistance to you and that my efforts have not been in vain, I remain,

Yours truly,

THE AUTHOR.

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